STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

for

Humboldt Mill 4547 County Road 601 Champion, Michigan

Prepared for:

Rio Tinto Eagle Mine 4547 County Road 601 Champion, MI 49814

Prepared by:

Horizon Environmental Corporation 4771 – 50th Street, S.E., Suite One Grand Rapids, Michigan 49512

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1.0 GENERAL FACILITY INFORMATION

Name of Facility: Rio Tinto Eagle Mine, LLC - Humboldt Mill

Facility Address: 4547 County Rd 601, Champion, Michigan 49814

Standard Industrial Classification (SIC) Code: 1021

Owner or Authorized Representative: Rio Tinto Eagle Mine, LLC

FACILITY CONTACT

Name: Kristen Mariuzza

Title: Environmental & Permitting Manager

Telephone: (906) 486-1257

Mailing Address: Rio Tinto Eagle Mine, LLC - Humboldt Mill

4547 County Rd. 601, Champion, MI 49814

CERTIFIED STORM WATER OPERATORS

Mr. David Tornberg, Rio Tinto Eagle Mine Industrial Storm Water Operator No. I-11809

Ms. Amanda Zeidler, Rio Tinto Eagle Mine Industrial Storm Water Operator No. I-11689

Ms. Jennifer Nutini, Rio Tinto Eagle Mine Industrial Storm Water Operator No. I-11811

PERMIT INFORMATION

NPDES Permit Number: MI0058649

Effective Date of Coverage: Permit Issuance Date

Receiving Waters: Black River Watershed and the Middle Branch Escanaba River Watershed

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

This Storm Water Pollution Prevention Plan (SWPPP) must be reviewed and signed by the Certified Storm Water Operator and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. This SWPPP must be retained on-site at the facility which generates the storm water discharge. The SWPPP Certification for the Humboldt Mill site is provided in Appendix A.

BRIEF INDUSTRIAL ACTIVITY DESCRIPTION

The Humboldt Mill site was originally constructed in 1954 and was operated as a mining related industry. The site was acquired by Kennecott Eagle Land, LLC (KEL), now legally referred to as Rio Tinto Eagle Mine (RTEM), in September of 2008 with future plans to use the mill for processing nickel and copper ore. In the short term, RTEM performed preliminary site preparation activities, including removal and off-site disposal of mining residuals and wastes, improved site security, and general site improvements. This work was completed between September and November, 2008. The site is currently under construction, and this SWPPP has been prepared to cover the site during the construction period. This SWPPP includes both non-structural and structural storm water controls, with a phased implementation of the structural controls. The structural controls have been implemented as shown in this SWPPPs original Fig 3. The controls in place are as depicted in Figure 000-CI-002, attached to this document.

Rehabilitative activities to prepare the site for the long-term future use as a mill include the removal of certain equipment and pre-existing residual materials, demolition of structures and replacement of siding and roofing on the mill building, all of which are either currently underway or have been completed. As part of these activities, historical mining residuals identified in this SWPPP have been removed from the site or otherwise remediated (per Due Care obligations), and permanent storm water controls implemented. The SWPPP will be revised as needed to reflect future changes in site conditions.

2.0 STORM WATER POLLUTION PREVENTION TEAM

The storm water pollution prevention team is responsible for developing, implementing, maintaining, and revising the SWPPP. A storm water pollution prevention team has been established for the RTEM – Humboldt Mill to implement the site's SWPPP. This team is familiar with the management and operation of the RTEM – Humboldt Mill and the provisions of this SWPPP. The members of the team and their primary responsibilities include:

NAME & TITLE	RESPONSIBILITY
Mr. David Tornberg	Implementing, maintaining, employee training, record keeping, submitting reports, conducting inspections, conducting the annual compliance evaluation
Ms. Amanda Zeidler	Conducting inspections and participating in annual compliance evaluation
Ms. Jennifer Nutini	Conducting inspections and participating in annual compliance evaluation

3.0 SITE STORM WATER MAPS

A Site Location Map (Figure 1) and a Site Storm Water Map (Figure 2) have been prepared for the RTEM – Humboldt Mill site. Figure 2 represents the site in its current state and illustrates site buildings and structures, sources of potential storm water impact, drainage areas and flow directions.

4.0 SIGNIFICANT MATERIALS

Initial activities to prepare the RTEM - Humboldt Mill site for long-term future use involved the removal of numerous mill residues and wastes from site buildings and equipment. All significant materials brought on site are managed in a way that they are not exposed to storm water. As a result of historic site operations, mill residues and waste were disposed or stockpiled on-site and these materials could degrade or impact storm water quality. Areas where significant materials are on-site include:

- 1. Mining residuals (i.e. iron ore concentrate) located in various areas
- 2. Two (2) 275 Gal gasoline ASTs located in the laydown/contractor trailer area
- 3. Miscellaneous construction supplies (e.g. grease, paint, solvents, etc.). These items will be stored indoors.

Currently there are no areas on site that present a threat to surface water. A list of significant materials is provided on Table 1.

4.1 List of Significant Spills

No releases of polluting materials have occurred at the RTEM – Humboldt Mill site since RTEM took ownership of the site in September of 2008. Rehabilitation activities performed at the site did not involve significant hazardous substance use, nor were hazardous substances brought onto the site. The only hazardous substances managed at the site were those removed from site buildings and equipment. All residuals and waste materials generated during rehabilitation activities were managed in accordance with the site's Due Care Plan and associated Residuals Management Plan. In the event of a future significant release of hazardous substances, the release will be documented on the form provided in Appendix B, and listed on Table 2, List of Significant Spills.

5.0 NON-STRUCTURAL CONTROLS

5.1 Preventative Maintenance Program (Monthly Inspection Program)

During non-winter months, RTEM will perform monthly storm water inspections and ongoing maintenance of the site's storm water management and control devices. Because there is no potential for storm water runoff from the site during the winter months, inspections will only be performed when site runoff can occur (approx. March through November). A monthly inspection log (including any necessary corrective actions) will be maintained on-file at the site and will be retained for three years.

A copy of the monthly storm water preventative maintenance and housekeeping inspection form (see Section 5.2) is provided in Appendix C.

Housekeeping Procedures

Housekeeping procedures are intended to reduce the potential for significant materials to come in contact with storm water. Examples of good housekeeping procedures to be employed at the site include:

- When brought or generated on-site, construction materials, debris, trash, fuel or paint shall be managed with good housekeeping practices.
- Any materials that present a storm water exposure potential will be stored under shelter, tarps, or indoors to minimize precipitation runoff.

Good housekeeping procedures will be evaluated and inspected as part of the facility's monthly storm water inspection program (see Section 5.1).

5.2 Comprehensive Site Inspection (Semi-Annual Inspection Program)

RTEM will perform a comprehensive site inspection by the Certified Storm Water Operator semi- annually. Documentation of the comprehensive site inspection results will be prepared and retained for three years. This documentation will include any identified incidents of non-compliance with the SWPPP or the site's storm water permit. If there are no identified incidents of non-compliance, the comprehensive site inspection documentation will contain a certification that the facility is in compliance with its storm water permit.

The comprehensive site inspection will include:

- A thorough inspection of the condition and location of the site's stormwater management and control structures;
- A review of the preventive maintenance and material handling practices, if applicable (see section 5.4);
- A review of good housekeeping practices, if applicable (see section 5.1); and
- All other paperwork associated with this SWPPP.

A copy of the semi-annual comprehensive site inspection form is provided in Appendix D.

5.4 Material Handling & Spill Prevention / Clean-Up Procedures

In the event that materials or equipment are brought on-site, material handling procedures and storage requirements for significant materials will be managed in the following manner:

- Any equipment brought on-site will be inspected and maintained to prevent fluid leakage due to corrosion or loose joints;
- Personnel shall be trained in spill prevention and control procedures;
- Use of appropriate equipment (e.g., shovels, adsorbents, PPE) to clean up spills;
- Hazardous materials (if any) will be properly disposed; and
- Spills will be reported in accordance with state and federal regulations (see Section 4.1).

5.5 Employee Training Program

RTEM employees involved with storm water management activities at the Humboldt Mill site receive training on the site's SWPPP on an annual basis. This training covers the following topics:

- Components and goals of the SWPPP;
- Good housekeeping practices;
- Spill prevention and response procedures;
- · Waste minimization practices; and
- Informing visitors and contractors of facility policies, etc.

5.6 List of Storm Water Exposures

SIGNIFICANT MATERIAL & LOCATION:	PLANNED CONTROL MEASURE:	IMPACTED OUTFALL:
Sediment and residual contaminants associated with the former stockpiles and pyrite trench.	Stockpiled materials have been graded or excavated/removed from the site, and remaining materials covered/capped with soil, asphalt (parking lot), or buildings. There is no longer exposure risk to storm water.	Storm Water Basin
275 Gal Diesel AST located near construction trailers	Initial controls - secondary containment with built-in canopy; Secondary controls - straw-filled 9" tubular sedimentation and storm water control filtration devices installed along south side of area.	Storm Water Basin
275 Gal Gasoline AST located near construction trailers	Initial controls - secondary containment with built-in canopy; Secondary controls - straw-filled 9" tubular sedimentation and storm water control filtration devices installed along south side of area.	Storm Water Basin
Miscellaneous Construction Materials	Initial controls (straw-bale check dams) installed along south drainage ditch.	Storm Water Basin

6.0 STRUCTURAL CONTROLS

Storm water run-off from the areas of historical mining residue at the Humboldt Mill site is being managed primarily through the use of initial and secondary structural controls, including straw-filled 9" tubular sediment and storm water control filtration devices, straw bales and rip rap as check dams, and silt fencing. A summary of these specific areas and primary and secondary structural control measure are described in the following table.

	AREA:	CONTROL MEASURE:
l	The east/west collection ditch system that runs south of the Main Mill Building and the Office/Mill Dry Building which extends west to the storm water basin.	Initial controls (straw bales/rip rap) installed at regular intervals (every ~30 ft.) within ditch perpendicular to flow to serve as check dams. Secondary controls (silt fencing) installed around the perimeter of the ditch.
	Storm water flowing to the south side of the mill property.	Initial controls (straw-filled 9" tubular sediment and storm water control filtration devices) installed along south side of area to control sedimentation run-off. Site grading is such that storm water from this area flows west to the storm water basin.

Installation of initial structural storm water controls was completed by November 18, 2009, and secondary structural storm water controls were installed during the summer of 2010. Residuals removal, capping, and the construction of storm water basin occurred during 2011 and 2012.-A list of the structural controls employed at the Humboldt Mill is provided on Table 3.

7.0 NON-STORM WATER DISCHARGES

There are no non-storm water discharges from the site.

8.0 ANNUAL REVIEW

RTEM will perform an annual review and update of the SWPPP and maintain written documentation of this review on-site. Based on the annual review, RTEM will amend the SWPPP as needed to ensure continued compliance with the terms and conditions of the Humboldt Mill's storm water permit. The annual review will be documented on the form provided in Appendix E.

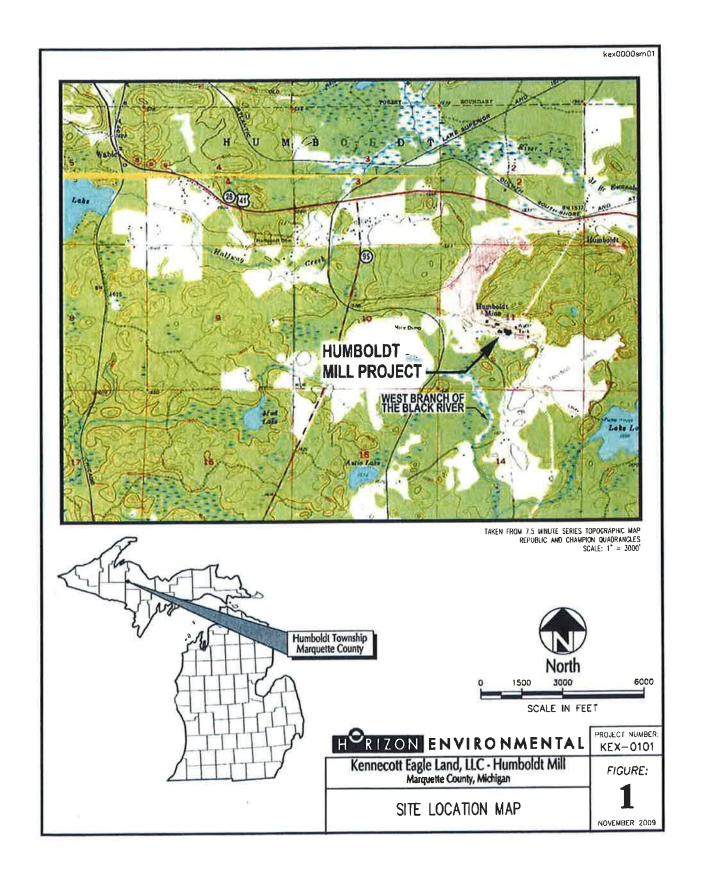
9.0 CERTIFIED STORM WATER OPERATOR UPDATE

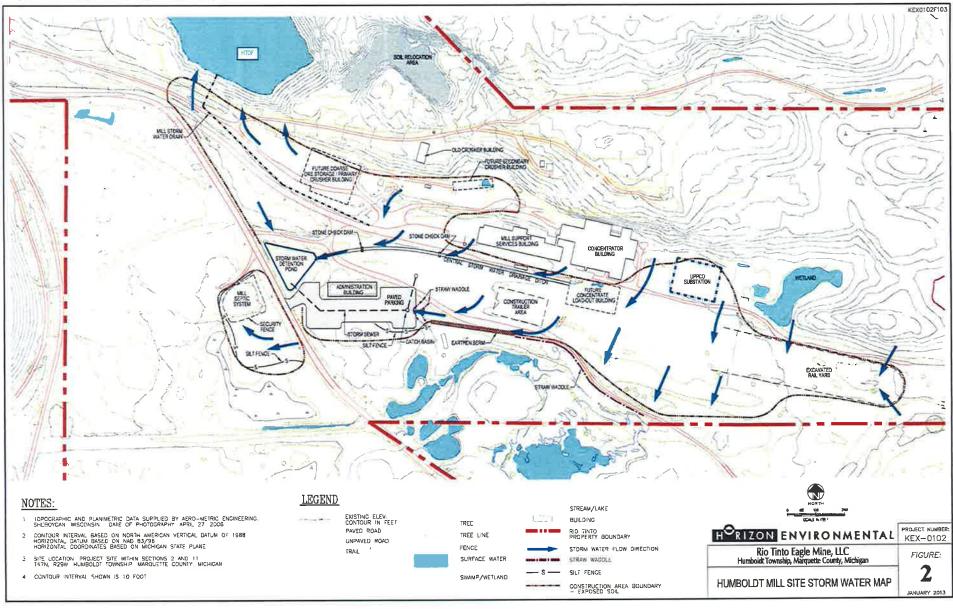
If the site's Certified Storm Water Operator(s) changes or an additional Certified Storm Water Operator is added, RTEM will provide the name and certification number of the new Certified Storm Water Operator(s) to the MDEQ.

10.0 RECORD KEEPING REQUIREMENTS

As previously discussed, RTEM will maintain records of all required SWPPP-related inspection, training and maintenance activities. RTEM will also keep records describing incidents such as spills or other discharges that can affect the quality of storm water runoff. All required records will be retained on site for three years.

FIGURES





TABLES

TABLE 1 SIGNIFICANT MATERIAL INVENTORY AND DESCRIPTION OF INDUSTRIAL ACTIVITY OR SIGNIFICANT MATERIAL STORAGE AREAS

Industrial Activity or Significant Material Storage Areas	Significant Materials	Exposure Method	Inlet	Outfall
Fuel (gasoline and Diesel) Storage Tanks	Gasoline/Diesel	Precipitation	Precipitation	Storm Water Basin
×				

TABLE 2 LIST OF SIGNIFICANT SPILLS

Location & Date	Material & Volume	Corrective Actions Taken
	1	

TABLE 3 STRUCTURAL CONTROLS EMPLOYED AT HUMBOLDT MILL

Location of Structural Control	Significant Materials intended to be managed
As illustrated on Figure 2, Site Storm Water Map	Sediment/Residuals
The collection ditch system that runs south of the Main Mill Building and the Office/Mill Dry Building.	Erosion and sedimentation control for precipitation running into the ditch from the north.
West end of property	Storm water/sediment from site
	As illustrated on Figure 2, Site Storm Water Map The collection ditch system that runs south of the Main Mill Building and the Office/Mill Dry Building.

APPENDICES

APPENDIX A - SWPPP CERTIFICATION

The permit requires that the SWPPP shall be reviewed and signed by the Certified Storm Water Operator(s) and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. The SWPPP shall be retained on-site at the facility which generates the storm water discharge.

I certify under penalty of law that the storm water drainage system in this SWPPP has been tested or evaluated for the presence of non-storm water discharges either by me, or under my direction and supervision. I certify under penalty of law that this SWPPP has been developed in accordance with the General Permit and with good engineering practices. To the best of my knowledge and belief, the information submitted is true, accurate, and complete. At the time this plan was completed no unauthorized discharges were present. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Permittee or Authorized Represe	entative
Prințed Name & Title:	
Kristen Mariuzza.	Environmental & Permitting Manager
Signature & Date:	
Kt SND	1-30-2013
Certified Storm Water Operator	
Printed Name & Certification Numb	per:
David Tornberg	I-11809
Signature & Date:	, 1
Dur Timy	1/30/13

APPENDIX B - MDEQ Spill or Release Report Form



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SPILL OR RELEASE REPORT

NOTE: Some regulations require a specific form to use and procedures to follow when reporting a release. Those forms and procedures MUST be used and followed if reporting under those regulations. This report form is to aid persons reporting releases under regulations that do not require a specific form. This report form is not required to be used. To report a release, some regulations require a facility to call the PEAS Hottline at 800-292-4706, or DEQ District Office that oversees the county where it occurred, and other regulating agencies and provide the following information. A follow-up written report may be required. Keep a copy of this report as documentation that the release was reported. If you prefer to submit this report electronically by FAX or e-mail, contact the regulating agency for the correct telephone number or e-mail address. See the DEQ website on Spill/Release Reporting for more reporting information.

Please print or type all information. NAME AND TITLE OF PERSON SUBMITTING WRITTEN REPORT TELEPHONE NUMBER (provide area code) RELEASE LOCATION (provide address if different than business, if known, and give directions to the spill location. Include nearest highway, town, road intersection, etc.) STREET ADDRESS ZIP CODE BUSINESS TELEPHONE NUMBER (provide area code) SITE IDENTIFICATION NUMBER AND OTHER IDENTIFYING NUMBERS OF Applicable) TIER/RANGE/SECTION TOWNSHIP RELEASE DATA. Complete all applicable categories. Check all the boxes that apply to the release. Provide the best available information regarding the release and its impacts. Attach additional pages if necessary. DATE & TIME OF DURATION OF RELEASE (If known) TYPE OF INCIDENT DATE & TIME OF Type of incident

Explosion

Fire

Leaking container

Loading/unloading release Pipelvalve leak or rupture days ☐ Vehicle accident. hours Other minutes апирт amíom MATERIAL RELEASED (Chemical or trade name) CAS NUMBER & ESTIMATED QUANTITY PHYSICAL STATE RELEASED (Indicate unit HAZARDOUS WASTE CODE RELEASED CHECK HERE IF ADDITIONAL MATERIALS LISTED ON ATTACHED PAGE. FACTORS CONTRIBUTING TO RELEASE SOURCE OF LOSS ☐ Training deficiencies Equipment failure
Operator error Truck Ship Container ☐ Tank Unusual weather conditions ☐ Railroad ☐ Pipeline Railroad car □ Other Faulty process design ☐ Other ☐ Tanker TYPE OF MATERIAL RELEASED MATERIAL LISTED ON or DEFINED BY IMMEDIATE ACTIONS TAKEN Containment
Dilution
Evacuation
Hazard remova ☐ CAA Section 112(r) list (40 CFR Part 68) Agricultural: manura, pesticide, Diversion of release to fertilizer ☐ CERCLA Table 302 4 (40 CFR Part 302); Irealment ☐ Chemicals ☐ EPCRA Extremely Hazardous Substance □ Decontamination of Flammable or combustible liquid (40 CFR Part 355) Hazard removal persons or equipment ☐ Monitoring☐ Other☐ Michigan Critical Materials Register or permit Hazardous waste NREPA Part 31, Part 5 Rules polluting material System shut down Liquid industrial waste Oil/petroleum products or waste NREPA Part 111 or RCRA hazardous waste Sall Sewage NREPA Part 121 liquid industrial waste Other list Other____Unknown Unknown RELEASE REACHED Distance from spill location to surface water in feet Surface waters (include name of river, lake, drain involved) ☐ Drain connected to sanitary sewer (include name of wastewater treatment plant and/or street drain, if known) ☐ Drain connected to storm sewer (include name of drain or water body it discharges into, if known). Groundwater (indicate if it is a known or suspected drinking water source and include name of aquifer, if known) Soils (include type e.g. clay, sand loam, etc.). Ambient Air Spill contained on impervious surface

EXTENT OF INJURIES, IF ANY		WAS ANYONE HOSPITALIZED? Yes NUMBER HOSPITALIZED:	TOTAL NUMBER OF INJURIES TREATED ON-SITE:
		□ No	
DESCRIBE THE INCIDENT, THE TYPE OF EQUIPMENT INVOLVED IN THE RELEASE, ENVIRONMENTAL DAMAGE CAUSED BY THE RELEASE. IDENTIFY WHO IMMEDIAT DAMAGE, contact person, and lelephone number). ALSO IDENTIFY WHO DID FURTHER CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED OF	TELY RESPONDED TO THE INCIDENT (OWN RICLEANUP ACTIVITIES, IF PERFORMED C	employees or confractor — inclu	de cleanup company
ESTIMATED QUANTITY OF ANY RECOVERED MATERIALS AND A DESCRIPTION OF CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED OF CHECK HERE IF DESCRIPTION OR ADDITIONAL TO HUMAN HEALTH (Include regarding medical attention necessary for exposed individuals.)	N ATTACHED PAGE		
CHIGAN DEPARTMENT OF EM/IRONMENTAL QUALITY NOTIFIED:	OTHER ENTITIES NOTIFIED:		
HTIAL CONTACT BY: Telephone Fax Email Other	□ National Response Center (I		Date: Time
PEAS: 800-292-4706 Log Number Assigned DEQ District or Field Office Divisions or Offices Contacted: Baraga Gwinn Air Quality Bay City Jackson Land & Water Management Cadillac Kalamazoo Office Geological Survey Crystal Falls Lansing Remediation and	□ Detroit □ Grand Haven □ S □ US Department of Transport □ US Environmental Protection □ 911 (or primary public safety □ Local Fire Department □ Local Police and/or State Po	ation	
□ Detroit □ Newberry Redevalopment □ Gaylord □ Warren □ Waste and Hazardous □ Grand Rapids □ Wyoming Materials □ DEQ Office focations are subject to change □ Water Bureau		Commission	
AME AND TITLE OF PERSON MAKING INITIAL REPORT:	Department of Labor & Econ Department of Labor & Econ Michigan Department of Agr Other	omic Growth Fire Safety	
EQ STAFF CONTACTED & PHONE NUMBER:	PERSON CONTACTED & PHO	NE NUMBER:	
ATE WRITTEN REPORT SUBMITTED SIGNATURE OF PERSON SUBM	ITTING WRITTEN REPORT		

APPENDIX C – MONTHLY PREVENTATIVE MAINTENANCE/HOUSEKEEPING INSPECTION FORM

Date:		Time:	
Inspector			
Print:		Signature:	
Areas Inspected	Observation		Corrective Actions Taken

APPENDIX D - SEMI-ANNUAL COMPREHENSIVE SITE INSPECTION FORM

Date:		Time:	
Inspector			
Print:		Signature:	
Is the Facility in compli	ance with the General	Storm Water Perm	it and the SWPPP:
Areas inspected	Observation		Corrective Actions Taken

APPENDIX E - Annual SWPPP Review Form

Date of Review:				
Reviewer				
Reviewer Print:	Signature:			

Annual SWPPP Review Checklist

1) Facility general information and SWPPP team information is current	Yes	No	
and accurate			(1/2/p)T
2) Site map is current and accurate	Yes	No	22
3) Significant material inventory is current and accurate	Yes	No	NITTEN
New exposures, processes and related controls have been documented	Yes	No	NA
5) Spills have been recorded and reported as appropriate	Yes	No	NA
6) Records of routine preventative maintenance, housekeeping and employee training are available in Intelex	Yes	No	
7) Comprehensive site inspections have been completed, certified and filed in the SWPPP file	Yes	No	
8) Corrective actions noted in the inspection reports have been completed	Yes	No	
9) Certified Storm Water Operator is current	Yes	No	
10) Annual fees have been paid	Yes	No	
11) Permit renewal request has been processed	Yes	No	NA
12) SWPPP has been reviewed and signed by the Certified Storm Water Operator and the Permittee or designated representative	Yes	No	

Additional Comments:			

APPENDIX F – Site Specific Industrial Storm Water Operator Training

Date of Training:	
Trainer:	
Print:	Signature:
Trainee:	
Print:	Signature:
TRAINING TOPICS	
1) SWPPP Training – SWPPP Ov	verview
2) Good Housekeeping Practices	
3) Spill Prevention & Response P	
4) Waste Minimization Practices	
5) Communication of RTEM Police	cies applicable to Storm Water Pollution Prevention
6) Site Specific Training	
Additional Comments:	